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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,217	02/17/2004	Robert Geary	03130.0005.NPUS01	2216

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WASHINGTON, DC 20005

EXAMINER

PATEL, NIHIR B

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/708,217		GEARY, ROBERT	
	Examiner		Art Unit	
	Nihir Patel		3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02.17.2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mitani (US 2002/0162915) in view of Radowitz (Bottled oxygen could protect against blood clots; Irish Examiner.com).

3. As to claim 1 rejected under 35 U.S.C. 102(e), Mitani teaches a method of increasing atmospheric oxygen concentration within an occupant cabin (see page 2 paragraphs [0020] and [0021]). Therefore inherently decreasing deep vein thrombosis occurrence.

4. As to claim 1 rejected under 35 U.S.C. 103(a) Mitani in view of Radowitz, Mitani discloses the teaching of increasing atmospheric oxygen concentration within an occupant cabin but fails to mention that increasing atmospheric oxygen concentration within an occupant cabin also decreases the occurrence of deep vein thrombosis. The article by Radowitz states that by increasing the concentration of oxygen the occurrence of deep vein thrombosis decreases. Therefore it would have been obvious to one in the ordinary skill of the art to increase atmospheric oxygen concentration within an occupant cabin thereby decreasing the occurrence of deep vein thrombosis in order to prevent the occurrence of pulmonary embolism.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims **2-5, 8 and 9** are rejected under 35 U.S.C. 102(e) as being anticipated by Mitani (US 2002/0162915).

7. **As to claim 2**, Mitani teaches a method step comprising separating oxygen from ambient air onboard an aircraft thereby establishing a high concentration oxygen supply; dispensing high concentration oxygen from the supply to an occupant cabin of the aircraft thereby increasing the level of oxygen concentration within the cabin to a level greater than the naturally occurring partial pressure of oxygen at the experienced internal cabin pressure (**see page 2 paragraphs [0020] and [0021]**).

8. **As to claim 3**, Mitani teaches a method step comprising separating nitrogen from ambient air onboard an aircraft thereby establishing a high-concentration nitrogen supply; dispensing high concentration nitrogen from the supply to fire susceptible, non habitable region of the aircraft thereby decreasing the capability for the atmospheric therein to support combustion (**see page 2 paragraph [0020]**).

9. **As to claim 4**, Mitani teaches a method step comprising continuously detecting absolute pressure and oxygen percentage in areas of the aircraft, computing partial pressure of oxygen in

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those areas and reporting the resulting partial pressure of oxygen values to a central control system (see page 2 paragraphs [0019], [0020] and [0021]).

10. As to claim 5, Mitani teaches a method step comprising continuously reconfiguring the system pressures and flows in response to reported partial pressure of oxygen values, flight parameters, aircraft configuration and smoke/fire warning status (see page 2 paragraph [0024]).

11. As to claim 8, Mitani teaches a method step comprising separating nitrogen from ambient air onboard an aircraft thereby establishing a high concentration nitrogen supply; and dispensing high concentration nitrogen from the supply to a fire susceptible, non habitable region of the aircraft where the high concentration nitrogen is reservoired thereby decreasing the capability for the atmosphere therein to support combustion (see page 2 paragraph [0020] and [0021]).

12. As to claim 9, Mitani teaches a method step comprising separating oxygen from ambient air onboard an aircraft thereby establishing a high concentration oxygen supply and dispensing high concentration oxygen from the supply to an occupant cabin of the aircraft thereby increasing the level of oxygen concentration within the cabin to a level greater than the naturally occurring partial pressure of oxygen at the experienced internal cabin pressure (see page 2 paragraphs [0020] and [0021]).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims **6, 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitani (US 2002/0162915) in view of Porlier (US 4,282,870).

16. **As to claims 6, 7 and 10**, Mitani discloses the applicant's invention as claimed with the exception of providing a method step of introducing the nitrogen rich air stored in the non habitable areas of the aircraft into the occupied, oxygen enriched areas. Porlier discloses a method step of introducing the nitrogen rich air stored in the non-habitable areas of the aircraft into the occupied, oxygen enriched areas. Therefore it would have been obvious to modify Mitani's invention by introducing the nitrogen rich air stored in the non habitable areas of the aircraft into the occupied, oxygen enriched areas as taught by Porlier instead discharging it out of the airplane as taught by Mitani in order to prevent lung atelectasis induced by positive "g" forces when breathing pure oxygen at lower altitudes.

Conclusion

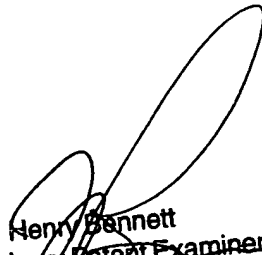
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nihir Patel whose telephone number is (571) 272-4803. The examiner can normally be reached on 7:30 to 4:30 every other Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (571) 272-4791. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nihir Patel
Art Unit 3743


Henry Bennett
Supervisory Patent Examiner
Group 3700